

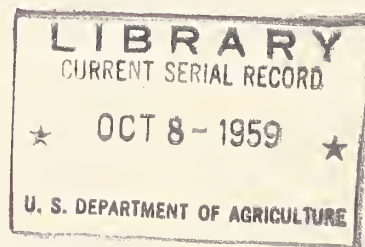
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**A REVIEW OF 1955 SURVEY DATA ON HOUSEHOLD
MEAT CONSUMPTION**

Reprinted From
The National Food Situation
April 1957



UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
AGRICULTURAL ECONOMICS DIVISION

A REVIEW OF 1955 SURVEY DATA ON HOUSEHOLD MEAT CONSUMPTION 1/

Meat, the most popular main dish of American meals, accounted for one-quarter of the household food outlays in spring 1955. 2/ It held a big edge over its nearest competitor, dairy products, which took 17 percent. Cereals and bakery products, vegetables, poultry and eggs, and fruits followed in importance. These data were reported by the households surveyed for the USDA in a nation-wide food consumption survey in the spring of 1955, the results of which were recently published. 3/

Data from this survey also reveal that meat accounted for about two-thirds of the amount spent for main dish items--meat, poultry, eggs, cheese, and seafood. Poultry and eggs came next in importance.

Meat held first place in all of the regions, but outlays ranged from 27 percent of the total expense for food for home use in the Northeast to 23 percent for the South. Urban households allocated more of their at-home food dollars to meat than rural households. Table 14 shows the shares of the food dollar allocated to meat by households in regional and urbanization groupings.

These figures on dollar outlays for meat cover only that part of meat consumption which was purchased, thus excluding supplies produced for home use, as by farm households. Including the meat home produced or received as gift or pay, meat's share of the money value of all food used in farm households was 22 percent as compared with 19 percent on a purchased basis. 4/ In the other urbanization groups, non-purchased meats did not play a very important role (table 14).

1/ By Thomas J. Lanahan, Jr., Statistical and Historical Research Branch, AMS.

2/ Household food includes all food (except alcoholic beverages) served to household members in the home (including guests, boarders and hired help) and food carried from home in packed meals. Meals and snacks purchased and eaten away from home are excluded.

3/ 1955 Household Food Consumption Survey Reports No. 1-5, Food Consumption of Households in the United States and in the Northeast, North Central Region, South and West. Single copies are available from the Office of Information, USDA, Washington 25, D. C. Also see summary, "Consumption of Meat by Residence and Income of Families, Spring of 1955," The Livestock and Meat Situation, LMS-88, March 6, 1957.

4/ Quantities of foods received without direct expense, i.e. home produced or received as gift or pay, were valued at the average prices paid by households in the same urbanization-region group for similar items.

Table 14.- Meat's share of the money value of purchased foods only and of all food used at home, by region and urbanization, all households, in a week, spring 1955 ^{1/}

| Region | Percent of expense for purchased food only | | | | Percent of money value of all food ^{2/} | | | |
|---------------|---|---------|---------|---------|---|---------|---------|---------|
| | All | Urban | Rural | Farm | All | Urban | Rural | Farm |
| | house- holds | | nonfarm | | house- holds | | nonfarm | |
| | Percent | Percent | Percent | Percent | Percent | Percent | Percent | Percent |
| United States | 25.3 | 26.3 | 24.6 | 18.7 | 24.7 | 25.9 | 23.4 | 21.8 |
| Northeast | 26.8 | 27.1 | 26.3 | 22.4 | 26.1 | 26.7 | 24.5 | 24.7 |
| North Central | 25.6 | 26.6 | 25.8 | 18.1 | 25.6 | 26.1 | 25.4 | 24.2 |
| South | 23.0 | 24.7 | 21.9 | 18.4 | 22.0 | 24.4 | 20.5 | 18.5 |
| West | 25.4 | 25.8 | 26.0 | 17.9 | 25.1 | 25.4 | 25.4 | 22.5 |

^{1/} Based on data for food used at home, excluding alcoholic beverages, from 1955 Household Food Consumption Survey.

^{2/} Includes food from all sources, whether purchased, home-produced, or received as gift or pay.

Table 15.- Regional distribution of U. S. household market for all food, meat, poultry, and fish and of household population, in a week, spring 1955 ^{1/}

| Item | United | North- | North | South | West |
|---|---------|---------|---------|---------|---------|
| | States | east | Central | | |
| | | | Region | | |
| | Percent | Percent | Percent | Percent | Percent |
| Distribution of house- hold market for all food ^{2/} | 100 | 30 | 33 | 24 | 13 |
| Total meat | 100 | 32 | 33 | 22 | 13 |
| Beef | 100 | 33 | 34 | 18 | 15 |
| Veal | 100 | 49 | 26 | 15 | 10 |
| Pork | 100 | 27 | 34 | 28 | 11 |
| Lamb and mutton | 100 | 58 | 19 | 6 | 17 |
| Other ^{3/} | 100 | 31 | 35 | 22 | 12 |
| Poultry | 100 | 35 | 28 | 26 | 11 |
| Fish and shellfish | 100 | 39 | 25 | 25 | 11 |
| Distribution of house- hold population ^{4/} | 100 | 27 | 31 | 31 | 11 |

^{1/} Calculated from data of 1955 Household Food Consumption Survey.

^{2/} Based on the amount of money reported spent by households for food at home less alcoholic beverages.

^{3/} Includes variety meats, game, and luncheon meats.

^{4/} Based on the number of equivalent persons (21 meals at home equivalent to one person) in housekeeping households, those in which at least one person had 10 or more meals from household food supplies in the seven days preceding the survey interview.

Distribution of Household Meat Market by Region

Households in the North Central Region and in the Northeast accounted for about 1/3 each of the total amount spent by households for meat in spring 1955. The South's meat expenditures accounted for 22 percent and the West 13 percent (table 15). Each region's share of the national household market for meat differed little from that for all food purchased for use at home, but rather large differences appeared among the various kinds of meat.

In the distribution of the beef market, compared with all meat, the West accounted for a greater share and the South a smaller share. Pork showed quite a different picture. The South took a much larger share while the Northeast and West were relatively less important.

These variations in shares of the commercial meat market attributed to each region arise from: (1) differences in the relative number of households and in average household size in each region, (2) differences in meat consumption rates, (3) proportion of purchased meat consumed and (4) the prices paid for meat.

Differences in purchase rates among the regions sometimes caused greater variations in their share of the total market than indicated on the basis of population. For example, about 27 percent of the household population was in the Northeast, but their lamb and mutton consumption rate was high enough to raise their share to over half of the total lamb and mutton market. On the other hand, the South had 31 percent of the household population sampled, but their beef expenditures accounted for only 18 percent of the total beef market.

Variations in Household Meat Consumption

The first five survey reports provide a mass of detail about how much of each kind and major cut of meat was consumed during a week in spring 1955 by households, grouped in several ways (e.g. by region, urbanization group and income). Because of the variations in household size among these groupings, the published figures on a household basis have been converted to a per person rate for this article. 5/

For the country as a whole, beef was the most important meat used in households in the spring of 1955, whether measured in terms of pounds used (table 16) or on a money value basis. It made up about

5/ These were computed by dividing the averages per household (published in report tables 4-22) by the average household size for the particular group (report table 3). The average household sizes were computed on the basis of 21 meals at home being equivalent to one person.

40 percent of both the quantity and money value of all meat used. Pork, of course, followed closely behind beef. Lamb and mutton, and veal were much less important, although in some regions these items were used in relatively large amounts.

This general picture is similar to that shown by earlier surveys. But the 1955 survey is the first to show a comprehensive picture of how meat consumption by region varies from the U.S. averages. Households in the North Central Region and the West used the most meat in the spring of 1955, averaging 3.4 pounds per person per week compared with 3.1 pounds in the Northeast and 2.6 pounds in the South (table 16).

Households in the West had the highest consumption rates per person for beef. The West was consistently as high or higher in each urbanization group than the other regions. The South was consistently low, particularly for rural households.

The pork consumption rate was highest in the South, followed closely by the North Central Region's. The South ranked high among urban households in use of pork, but the North Central led for the farm, mainly because of the large amount of home-produced pork used. The range in the average quantities of pork used per person among the various region-urbanization groupings of households was much less than for beef.

Lamb and mutton consumption rates varied greatly among the regions and urbanization groupings. For example, far greater amounts were consumed per person by the northeastern and western urban households than by the other households.

Back of these overall averages are wider variations in patterns within each grouping. These overall averages are affected by such factors as the current income of households in each group, funds available for meat purchases, the number of persons dependent on the income, the relative prices and supplies of meat available, the extent of home production of meat, the availability and relative prices of alternative foods, and the choices among the kinds cuts, and forms of meat. The survey yields data on two of the more important factors, household size and income.

The consumption-income relationships for all meat and for the various kinds of meat differ among the various regions, as indicated in table 17. The pork relationships shown for urban households are of particular interest. In the South and the North Central Region, areas of relatively large pork consumption, the use of pork decreased at higher-income levels. In the Northeast the decrease with income did not show up until after the \$6,000 income level. The West, an area of relatively low pork consumption, showed a very different relationship; consumption of pork there actually increased with income.

Table 16.- Quantity of meats used at home per person, by region and urbanization, all households, in a week, spring 1955 ^{1/}

| Region and urbanization group | Total meat | Beef | Veal | Pork | Lamb and mutton | Variety meats and game | Luncheon meats |
|-------------------------------------|---------------|------------|------------|------------|--------------------|------------------------------|-------------------|
| | <u>Lb.</u> | <u>Lb.</u> | <u>Lb.</u> | <u>Lb.</u> | <u>Lb.</u> | <u>Lb.</u> | <u>Lb.</u> |
| United States | 3.03 | 1.25 | 0.08 | 1.14 | 0.09 | 0.11 | 0.36 |
| Urban | 3.18 | 1.34 | .10 | 1.13 | .12 | .12 | .36 |
| Rural nonfarm | 2.82 | 1.10 | .05 | 1.15 | .03 | .10 | .39 |
| Farm | 2.84 | 1.18 | .02 | 1.21 | .02 | .09 | .32 |
| Northeast | 3.07 | 1.29 | .12 | .98 | .19 | .13 | .37 |
| Urban | 3.10 | 1.29 | .15 | .95 | .23 | .14 | .35 |
| Rural nonfarm | 2.92 | 1.23 | .06 | 1.01 | .09 | .10 | .43 |
| Farm | 3.32 | 1.54 | .05 | 1.15 | .07 | .11 | .39 |
| North Central | 3.38 | 1.51 | .07 | 1.23 | .05 | .10 | .42 |
| Urban | 3.42 | 1.52 | .10 | 1.22 | .08 | .09 | .42 |
| Rural nonfarm | 3.21 | 1.43 | .05 | 1.17 | .01 | .12 | .43 |
| Farm | 3.46 | 1.61 | .02 | 1.34 | .01 | .07 | .40 |
| South | 2.58 | .85 | .04 | 1.26 | .02 | .10 | .30 |
| Urban | 2.94 | 1.09 | .06 | 1.33 | .03 | .13 | .30 |
| Rural nonfarm | 2.33 | .64 | .03 | 1.22 | .02 | .07 | .34 |
| Farm | 2.19 | .68 | .01 | 1.18 | .01 | .07 | .23 |
| West | 3.37 | 1.62 | .07 | 1.00 | .13 | .17 | .37 |
| Urban | 3.29 | 1.52 | .07 | 1.00 | .17 | .16 | .38 |
| Rural nonfarm | 3.64 | 1.89 | .12 | 1.05 | .04 | .15 | .38 |
| Farm | 3.33 | 1.73 | .03 | .89 | .10 | .26 | .31 |

^{1/} Calculated from unrounded data of 1955 Household Food Consumption Survey.

Table 17 shows the consumption-income relationships for all meat, beef, and pork in each region by urbanization group. In general the households in the upper-income groups had the largest consumption rates for meat per person, but the data in this table indicate many variations in degree and some in direction.

The survey reports contain much information on the consumption of the principal cuts of meats by various groups of households. These data are too voluminous to describe and reproduce here. But the following is an example of the kind of information that can be obtained from the survey reports.

For north central urban households the per person consumption of beef steaks increased sharply with income, but the pattern varied by kind of steak. Round steak consumption increased very fast in the lower-income classes, then leveled off and after the \$5-6,000 income class dropped sharply. Steaks other than round steaks started to increase sharply after the \$4-5,000 income class, apparently indicating a shift in consumption from round to sirloin, T-bone, and porterhouse steaks among the upper-income households.

About 90 percent of the value of all the meat used by U. S. households in spring 1955 was purchased. The rest was obtained without direct expense to the household, that is, received as gifts or pay or produced for home use. Most of it was the latter.

Home-produced meat made up about half of the money value of all meat used by farm households. Rural nonfarm households obtained only about 5 percent of the money value of their meat through home production. The amount so obtained by urban households was negligible. 6/

6/ A survey report on home production of food in 1954, to be published later this year, will also contain some annual data on meat for farm and rural nonfarm households.

Table 17.- Quantity of total meat, beef, and pork used per person, households of 2 or more persons, by region, urbanization, and income, in a week, spring 1955 ^{1/}

| Region, food group, and urbanization | 1954 money income after income taxes | | | | | | | | | |
|--|--------------------------------------|------------------|-----------|-----------|-----------|-----------|-----------|-------------|------------|----------------------|
| | Total ^{2/} | Under \$1,000 | \$1-2,000 | \$2-3,000 | \$3-4,000 | \$4-5,000 | \$5-6,000 | \$6-8,000 | \$8-10,000 | \$10,000 and over |
| | Pounds | Pounds | Pounds | Pounds | Pounds | Pounds | Pounds | Pounds | Pounds | Pounds |
| United States | | | | | | | | | | |
| Total meat ^{3/} | 3.03 | 2.02 | 2.47 | 2.86 | 2.90 | 3.14 | 3.27 | 3.37 | 3.28 | 3.55 |
| Urban | 3.18 | 2.81 | 2.75 | 2.92 | 2.97 | 3.13 | 3.30 | 3.40 | 3.20 | 3.60 |
| Rural nonfarm | 2.81 | 1.58 | 2.08 | 2.73 | 2.73 | 3.08 | 3.15 | 3.35 | 3.47 | 3.05 |
| Farm | 2.83 | 2.03 | 2.57 | 2.98 | 3.00 | 3.36 | 3.33 | 3.20 | 3.58 | 4.20 |
| Beef | | | | | | | | | | |
| Urban | 1.25 | .65 | .85 | 1.05 | 1.16 | 1.34 | 1.40 | 1.47 | 1.58 | 1.67 |
| Rural nonfarm | 1.34 | .96 | .95 | 1.08 | 1.19 | 1.34 | 1.47 | 1.48 | 1.50 | 1.67 |
| Farm | 1.10 | .42 | .65 | .94 | 1.08 | 1.27 | 1.23 | 1.43 | 1.93 | 1.52 |
| Farm | 1.17 | .70 | .98 | 1.19 | 1.26 | 1.58 | 1.47 | 1.49 | 1.48 | 2.19 |
| Pork | | | | | | | | | | |
| Urban | 1.14 | 1.00 | 1.13 | 1.20 | 1.11 | 1.14 | 1.14 | 1.20 | 1.06 | 1.13 |
| Rural nonfarm | 1.13 | 1.27 | 1.21 | 1.14 | 1.10 | 1.08 | 1.13 | 1.19 | 1.00 | 1.12 |
| Farm | 1.13 | .81 | 1.01 | 1.24 | 1.10 | 1.24 | 1.12 | 1.23 | 1.11 | 1.14 |
| Farm | 1.21 | 1.04 | 1.17 | 1.28 | 1.25 | 1.26 | 1.31 | 1.21 | 1.44 | 1.40 |
| Northeast | | | | | | | | | | |
| Total meat ^{3/} | 3.07 | 2.11 | 2.29 | 3.04 | 2.89 | 3.05 | 3.17 | 3.38 | 2.86 | 3.13 |
| Urban | 3.10 | | 2.03 | 2.86 | 2.95 | 3.09 | 3.26 | 3.43 | 2.68 | 3.04 |
| Rural nonfarm | 2.93 | | 2.04 | 3.23 | 2.61 | 2.83 | 2.97 | (.) | 3.46 | (.) |
| Farm | 3.33 | 3.52 | 3.17 | 3.66 | 3.20 | 3.88 | 3.35 | (.) | 2.91 | (.) |
| Beef | | | | | | | | | | |
| Urban | 1.28 | .86 | .99 | 1.34 | 1.14 | 1.29 | 1.22 | 1.41 | 1.24 | 1.42 |
| Rural nonfarm | 1.29 | | .71 | 1.23 | 1.18 | 1.29 | 1.26 | 1.43 | 1.07 | 1.33 |
| Farm | 1.24 | | .97 | 1.45 | .97 | 1.24 | 1.09 | (.) | 1.57 | (.) |
| Farm | 1.54 | 1.74 | 1.60 | 1.62 | 1.52 | 1.84 | 1.52 | (.) | 1.27 | (.) |
| Pork | | | | | | | | | | |
| Urban | .98 | .82 | .80 | .95 | .99 | .92 | 1.07 | 1.03 | .89 | .85 |
| Rural nonfarm | .95 | | .80 | .82 | .97 | .90 | 1.05 | 1.01 | .87 | .84 |
| Farm | 1.02 | | .70 | 1.09 | 1.02 | .95 | 1.10 | (.) | 1.06 | (.) |
| Farm | 1.16 | 1.14 | 1.03 | 1.39 | 1.13 | 1.46 | 1.19 | (.) | .89 | (.) |
| North Central | | | | | | | | | | |
| Total meat ^{3/} | 3.37 | 2.82 | 3.04 | 3.31 | 3.15 | 3.30 | 3.54 | 3.51 | 3.42 | 3.42 |
| Urban | 3.42 | | 3.32 | 3.37 | 3.22 | 3.25 | 3.56 | 3.51 | 3.44 | 3.58 |
| Rural nonfarm | 3.19 | | 2.51 | 3.16 | 2.96 | 3.21 | 3.53 | (.) | 3.12 | (.) |
| Farm | 3.45 | 2.71 | 3.40 | 3.37 | 3.34 | 3.77 | 3.46 | (.) | 3.77 | (.) |
| Beef | | | | | | | | | | |
| Urban | 1.52 | 1.20 | 1.23 | 1.42 | 1.41 | 1.48 | 1.59 | 1.57 | 1.62 | 1.60 |
| Rural nonfarm | 1.53 | | 1.30 | 1.37 | 1.44 | 1.41 | 1.67 | 1.53 | 1.70 | 1.67 |
| Farm | 1.43 | | .91 | 1.39 | 1.31 | 1.53 | 1.40 | (.) | 1.48 | (.) |
| Farm | 1.61 | 1.29 | 1.52 | 1.55 | 1.53 | 1.75 | 1.60 | (.) | 1.73 | (.) |
| Pork | | | | | | | | | | |
| Urban | 1.22 | 1.18 | 1.25 | 1.27 | 1.16 | 1.19 | 1.23 | 1.32 | 1.20 | 1.09 |
| Rural nonfarm | 1.21 | | 1.38 | 1.29 | 1.16 | 1.18 | 1.23 | 1.36 | 1.08 | 1.08 |
| Farm | 1.15 | | 1.14 | 1.16 | 1.10 | 1.10 | 1.15 | (.) | 1.17 | (.) |
| Farm | 1.34 | 1.07 | 1.31 | 1.37 | 1.30 | 1.46 | 1.36 | (.) | 1.43 | (.) |
| South | | | | | | | | | | |
| Total meat ^{3/} | 2.56 | 1.76 | 2.29 | 2.58 | 2.57 | 2.99 | 2.91 | 3.07 | 3.19 | 3.40 |
| Urban | 2.93 | 2.66 | 2.93 | 2.83 | 2.65 | 3.11 | 2.91 | 3.19 | 3.26 | 3.47 |
| Rural nonfarm | 2.32 | 1.46 | 1.81 | 2.29 | 2.48 | 2.96 | 2.90 | (.) | 3.01* | (.) |
| Farm | 2.19 | 1.70 | 2.11 | 2.54 | 2.52 | 2.49 | 3.03 | (.) | 2.75 | (.) |
| Beef | | | | | | | | | | |
| Urban | .85 | .46 | .66 | .73 | .84 | 1.05 | 1.13 | 1.26 | 1.60 | 1.70 |
| Rural nonfarm | 1.09 | .80 | .91 | .91 | .92 | 1.22 | 1.21 | 1.47 | 1.63 | 1.80 |
| Farm | .63 | .32 | .42 | .48 | .75 | .78 | 1.00 | (.) | 1.11 | (.) |
| Farm | .68 | .44 | .64 | .82 | .74 | 1.12 | 1.06 | (.) | 1.02 | (.) |
| Pork | | | | | | | | | | |
| Urban | 1.25 | .99 | 1.19 | 1.33 | 1.22 | 1.50 | 1.27 | 1.37 | 1.06 | 1.17 |
| Rural nonfarm | 1.31 | 1.32 | 1.42 | 1.36 | 1.22 | 1.41 | 1.25 | 1.30 | 1.02 | 1.10 |
| Farm | 1.22 | .80 | 1.01 | 1.36 | 1.18 | 1.72 | 1.25 | (.) | 1.42 | (.) |
| Farm | 1.18 | 1.02 | 1.14 | 1.21 | 1.40 | 1.11 | 1.53 | (.) | 1.39 | (.) |
| West | | | | | | | | | | |
| Total meat ^{3/} | 3.37 | 3.30 | 2.72 | 2.84 | 3.29 | 3.17 | 3.41 | 3.34 | 3.94 | 4.50 |
| Urban | 3.30 | | 2.62 | 2.52 | 3.31 | 3.03 | 3.47 | 3.18 | 3.82 | 4.36 |
| Rural nonfarm | 3.59 | | 2.52 | | 3.36 | | | (.) | 4.98 | (.) |
| Farm | 3.33 | | 3.59 | | 3.04 | | 3.53 | (.) | 3.66 | (.) |
| Beef | | | | | | | | | | |
| Urban | 1.63 | 1.63 | 1.30 | 1.18 | 1.57 | 1.60 | 1.73 | 1.60 | 2.18 | 2.13 |
| Rural nonfarm | 1.53 | | 1.37 | .91 | 1.38 | 1.49 | 1.77 | 1.46 | 1.90 | 1.99 |
| Farm | 1.92 | | .98 | | 1.82 | | 1.85 | (.) | 2.99 | (.) |
| Farm | 1.74 | | 1.82 | | 1.53 | | 1.62 | (.) | 2.27 | (.) |
| Pork | | | | | | | | | | |
| Urban | 1.00 | .94 | .83 | .84 | .98 | .89 | .93 | 1.00 | 1.01 | 1.57 |
| Rural nonfarm | 1.01 | | .68 | .70 | 1.04 | .92 | .97 | .99 | 1.08 | 1.52 |
| Farm | 1.00 | | .96 | | .98 | | .91 | (.) | 1.28 | (.) |
| Farm | .88 | | 1.01 | | .83 | | .64 | (.) | .91 | (.) |

^{1/} Based on data from 1955 Household Food Consumption Survey. ^{2/} Includes data for households not reporting income. ^{3/} Includes veal, lamb, mutton, variety meats, luncheon meats and game not shown separately.

Technical Notes for Market ResearchersSurvey Coverage

The 1955 survey covered the use of food at home by housekeeping households during a week in April-June 1955. 7/ Consequently, these data exclude food used by persons on military posts, in institutions and in nonhouse-keeping households, as well as food purchased and eaten away from home by all persons. 8/ Household meat use may differ from restaurant and institutional use, but no pertinent data on the latter are available. 9/ Also, the survey covers meat consumption in the form in which it was brought into the kitchen (i.e., processed, boned, trimmed, etc.). Luncheon meats, for example, are processed from all the four meats, especially beef and pork, and usually contain mixtures. Since housewives interviewed in such surveys cannot report the makeup of the luncheon meats they use, the survey data on luncheon meats cannot be subdivided by kind of meat.

Comparison of 1955 Survey Data With
Meat "Disappearance" Data

The proportions of each kind of meat reported as used by the survey households reflect fairly well the total supplies of the four meats moving into consumption during the survey period. The level of meat consumption indicated in the 1955 household survey data seems to match up quite well with AMS civilian meat consumption estimates derived from USDA supply and distribution data which cover all civilian consumption.

7/ Relatively few data are available on seasonal variations in household meat consumption. From a review of data on seasonal variations in meat purchases of city households in 1948 and from data on the apparent total civilian consumption of meats by month, it appears that household meat consumption in the spring, generally, and in spring 1955, in particular, was representative of the annual rate. See Food Consumption of Urban Families in the United States (spring 1948), AIB-132, p. 102, Seasonal Patterns of Food Consumption, City Families, 1948, Special Report No. 3, 1948 Urban Food Consumption Surveys, ARS, USDA, p. 4, "Consumption of Commercially-Produced Meats by Months," The Livestock and Meat Situation, LMS-85, August 17, 1956, pp. 29-44, and Charting the Seasonal Market for Meat Animals, AH-83, p. 32.

8/ The survey was limited to those households which included at least one person who had 10 or more meals from household food supplies in the 7 days preceding the interview. The food use data were collected in personal interviews on a recall basis conducted by trained interviewers.

9/ The average quantities per person figures used in this article were calculated by dividing the published average quantities used per household by the appropriate average household size (21 meals at home equivalent to one person). This has the effect of counting the meals purchased and eaten away from home as having the same meat consumption rate as the meals eaten out of household food supplies.

Both sets of data were adjusted to a per person weekly basis for table 18 in order to simplify comparisons. The survey data reflect the meat supply and price situation existing in the local markets during April-June 1955 and are affected by the seasonal variations in household meat consumption.

Table 18.- Selected measures of weekly consumption
of meat per person, 1955

| Kind of meat | : Civilian consumption per capita : | | Household consumption per person, one week, April-June 3/ |
|------------------------|-------------------------------------|----------------------|---|
| | : (retail weight) : | | |
| | : Annual basis : | : Quarterly basis, : | |
| | : 1/ : | : April-June 2/ : | |
| | <u>Pounds</u> | <u>Pounds</u> | <u>Pounds</u> |
| All meat | 3.0 | 2.8 | 3.0 |
| Beef | 1.2 | 1.2 | 1.2 |
| Veal | .2 | .2 | .1 |
| Pork | 1.2 | 1.1 | 1.1 |
| Lamb and mutton | .1 | .1 | .1 |
| Variety meats and game | .3 | .2 | .1 |
| Luncheon meats | <u>4/</u> | <u>4/</u> | .4 |

1/ Derived from annual data in Supplement for 1956 to Consumption of Food in the United States, 1909-52, USDA AH-62, (to be published late in 1957).

2/ Derived from quarterly data (with some revisions) in "Consumption of Commercially-Produced Meats by Months," The Livestock and Meat Situation, IMS-85, August 17, 1956.

3/ Average quantity used per household divided by average household size (21 meals at home equivalent to one person) from data of 1955 Household Food Consumption Survey.

4/ Luncheon meats included in the other kinds of meat listed.

Changes in Meat

Consumption Over Time

Some of the readers of this Situation report will be interested in comparing the changes in average levels of consumption indicated by the data of the three most recent large household food consumption surveys (conducted in spring 1942, 1948 and 1955) and those of the time series (e.g. the AMS civilian meat consumption estimates).

The survey data are more limited in coverage than the time series data which cover total annual (or quarterly for some foods) civilian consumption. The surveys cover only spring household consumption. The 1955 survey had the benefit of a larger sample and improvements in survey methods as compared to the earlier surveys. Also, the relative shares of the meat consumption of household and the nonhousehold (latter excluded

from the surveys) segments probably were different in 1942 than in later years, because of the abnormal patterns of living and eating caused by the war. 10/

Reliability or precision in the estimates of U. S. meat consumption varies considerably between 1942 and 1955. For example, it was not until July 1943 that the monthly reporting of nonfederally inspected commercial slaughter was started. In 1943 began the reporting of live weights of farm slaughter; earlier data were based on estimates of numbers slaughtered. These factors tend to make the annual disappearance data for 1942 less reliable than those for later years (e.g. 1948 and 1955, times of household surveys), and give no satisfactory basis for quarterly comparisons with 1942 survey data.

Comparison of relative changes between 1948 and 1955 in meat consumption as measured by the survey data and by time series data is complicated by some additional factors. The detailed meat consumption data for 1948 are available only for purchases of urban households of two or more persons, while the time series data cover total civilian consumption, including home-produced meat, etc. Taking into account these problems of comparability, the measures of change appear to match reasonably well.

Although the principal contribution of large-scale surveys, such as the 1955 survey, is their detailed information on the structure of household consumption in the period of the survey, they also provide useful data for analysis of changes in the patterns of the structure through time. For example, between spring 1942 and spring 1955 there was a very large increase in the beef consumption rate for farm households. Even though the share of the farm population in households dropped from 21 percent in 1942 to 13 percent in 1955, the farm share of the total amount of beef used in households was about the same (table 19). This came about because the quantity of beef used per person in farm households, increased much more than for the other urbanization groups.

Comparisons may be made of urban beef consumption rates for roughly comparable real income levels using survey data for spring 1948 and spring 1955 given in table 20. In this table the 1947 average money income figures have been adjusted to 1954 dollars, taking into account the 20 percent change in average retail prices of all consumer goods and services between 1947 and 1954. 11/ The table shows that the substantial increase was shared proportionately at all income levels so the consumption-income relationships are similar in the two years. This provides an interesting example of what may happen to consumption patterns when total supplies of a food are increased.

10/ See the notes for marketing researchers in article on "Highlights of Urban Household Food Consumption Patterns of Spring 1955" in this issue and Food Consumption of Urban Families in the United States, (spring 1948), AIB-132, pp. 43-50 for a discussion of problems in comparing survey data among time periods.

11/ Computed from Bureau of Labor Statistics Consumer Price Index.

Table 19.- Quantity of meat used at home and share of U. S. total, and distribution of household population, by urbanization, in a week, spring 1942 and 1955 ^{1/}

| Item and urbanization group | 1942 | | | 1955 | | |
|-----------------------------|-----------------------|---|--|-----------------------|---|--|
| | Quantity of meat used | | Distri- bution of household popula- tion ^{3/} | Quantity of meat used | | Distri- bution of household popula- tion ^{3/} |
| | Per | Share of | | Per | Share of | |
| | person | U. S. household use ^{2/} | | person | U. S. household use ^{2/} | |
| | Pounds | Percent | Percent | Pounds | Percent | Percent |
| Total meat ^{4/} | | | | | | |
| United States | 2.05 | 100 | 100 | 3.03 | 100 | 100 |
| Urban | 2.34 | 64 | 56 | 3.18 | 63 | 60 |
| Rural nonfarm | 1.64 | 18 | 23 | 2.82 | 25 | 27 |
| Farm | 1.71 | 18 | 21 | 2.84 | 12 | 13 |
| Beef | | | | | | |
| United States | .77 | 100 | 100 | 1.25 | 100 | 100 |
| Urban | .97 | 71 | 56 | 1.34 | 65 | 60 |
| Rural nonfarm | .58 | 17 | 23 | 1.10 | 23 | 27 |
| Farm | .42 | 12 | 21 | 1.18 | 12 | 13 |
| Pork | | | | | | |
| United States | .82 | 100 | 100 | 1.14 | 100 | 100 |
| Urban | .78 | 54 | 56 | 1.13 | 59 | 60 |
| Rural nonfarm | .72 | 20 | 23 | 1.15 | 27 | 27 |
| Farm | 1.00 | 26 | 21 | 1.21 | 14 | 13 |

^{1/} Calculated from data in Family Food Consumption in the United States (spring 1942), MP-550 and Food Consumption of Households in the United States, Report No. 1, 1955 Household Food Consumption Survey.

^{2/} Distribution of the total quantity of meats used in households, which was calculated by multiplying average quantity used per person by the estimated number of equivalent persons in the households (see footnote 3).

^{3/} Estimated by multiplying the average household size (21 meals out of total household food supplies equivalent to one person) by the number of households eligible for the survey.

^{4/} Includes lamb, mutton, veal, luncheon meats, variety meats, and game not shown separately.

Table 20.- Quantity of purchased beef used per person and average annual income in 1954 dollars, urban households of 2 or more persons, by income, in a week, spring 1948 and 1955 ^{1/}

| Income in current dollars ^{2/} | Spring 1948 survey | | Spring 1955 survey | |
|---|----------------------------|------------|--------------------------|------------|
| | Average | Quantity | Average | Quantity |
| | 1947 money: income in | used | 1954 money: income after | used |
| | 1954 dollars ^{3/} | per person | income taxes | per person |
| | Dollars | Pounds | Dollars | Pounds |
| All households ^{4/} | 4,334 | 0.94 | 5,163 | 1.32 |
| Under 1,000 | { 733 | .63 | 478 | .94 |
| 1-2,000 | { 1,869 | .73 | 1,520 | .90 |
| 2-3,000 | { 3,011 | .82 | 2,511 | 1.07 |
| 3-4,000 | { 4,189 | .99 | 3,517 | 1.16 |
| 4-5,000 | { 5,314 | 1.08 | 4,500 | 1.33 |
| 5,000 and over ^{5/} | | | | |
| 5-6,000 (in 1954) | | | 5,444 | 1.43 |
| 6-8,000 (in 1954) | | | 6,766 | 1.46 |
| 5-7,500 (in 1947) | 7,045 | 1.08 | | |
| 8-10,000 (in 1954) | | | 8,860 | 1.49 |
| 7,500 and over (in 1947) : | 14,143 | 1.18 | | |
| 10,000 and over (in 1954): | | | 16,050 | 1.65 |

^{1/} Based on data in Food Consumption of Urban Families in the United States (spring 1948), AIB-132, and Food Consumption of Households in the United States, Report No. 1, 1955 Household Food Consumption Survey.

^{2/} The spring 1948 survey data are grouped by the 1947 money income after Federal taxes while the spring 1955 survey data are grouped by the 1954 money income after all income taxes. Data for each income group have been placed in the table according to the rank order of their average incomes in terms of 1954 dollars in order to facilitate comparisons by real income level between the two survey periods.

^{3/} Average incomes after Federal income taxes adjusted for changes in consumer prices between 1947 and 1954.

^{4/} Includes data for households not classified by income.

^{5/} Income classifications over \$5,000 not the same in the surveys.

Changes in Home
Production of Meat
from 1942 to 1955

As indicated in table 19, the consumption of meat per person in farm households increased along with the rest of the country between 1942 and 1955. The amount of home-produced meat consumed on farms in spring 1955 also exceeded that of 1942, but not by as much as in the case of purchased meat. This caused a drop in the relative importance of home production of meat in total meat consumption for the farm households.

The big drop was in the share of pork that was home-produced, from around three-fourths in spring 1942 to a little over half in spring 1955. Use of home-produced beef, on the other hand, increased greatly. It rose from 26 percent of the value of all meat used on farms in 1942 to 60 percent in 1955.

Increased home supply of beef was only part of a general rise in consumption of that meat on farms. In pounds per person, farm consumption of all beef increased almost three-fold from the spring of 1942 to the spring of 1955. Consumption of home-produced beef increased between six and seven times.

Stepped-up home production and total use of beef on farms in spring 1955 doubtless are due to a combination of many factors. Among these are the general increase in beef consumption throughout the country to a 1955 rate that was a record high to that time, and the increase in freezing facilities. The new storage facilities tended to increase the consumption of home-produced meats on farms, especially beef, in the spring (when the surveys were taken), formerly a period of relatively low beef supplies on farms. Comparisons between 1942 and 1955 for the fall or winter probably would show smaller changes than those reported here for the spring.

Even though the share of home-produced meat in the value of all farm-consumed meat decrease from about 60 percent to 50 percent between 1942 and 1955, the drop was less than for all foods combined. The home-produced share of the value of all foods fell from about 60 percent to 40. New facilities for storing meat on farms helped to slow the trend away from home production for meat more than for other foods. Also, part of this change in the shares of the money value of meat and of all foods home produced by farm households shown in the survey data was influenced by the somewhat greater increase in average retail prices for meat than for all foods combined over this period.

Special Aspects of
Income-Consumption
Relationships

The distribution of households among the several levels of income materially affects total consumption in each area. To illustrate, here is the percentage of all southern households of two or more persons who had less than specified amounts of money income after income taxes in 1954 in each urbanization group: 12/

| | <u>All</u> | <u>Urban</u> | <u>Rural nonfarm</u> | <u>Farm</u> |
|---------------|------------|--------------|----------------------|-------------|
| Under \$1,000 | 9.7 | 5.4 | 15.9 | 34.2 |
| Under \$2,000 | 25.7 | 20.3 | 33.6 | 59.9 |
| Under \$3,000 | 44.1 | 39.1 | 51.3 | 75.6 |
| Under \$4,000 | 65.5 | 60.5 | 72.6 | 86.1 |

The probable effect of these differences in the distribution of households by money income can be judged by reference to the meat consumption rates per person by income level given in table 17.

Not only are households distributed differently among income groups by urbanization, but the relation of the consumption rate to income varies. For example, average meat consumption per person in southern urban households increased with money income, but not at a fast rate. The rural households (farm and nonfarm), particularly rural nonfarm, showed a greater increase in consumption with increased money incomes. In the south the major differences in consumption rates among the urbanization groups were below the \$4,000 level.

The following example gives further evidence of the effect of the distribution of households by income level on the average meat consumption rate for the rural nonfarm urbanization group in the South. Households of 2 or more persons reporting their income in this group consumed 9.1 pounds of meat per household on the average. When this average is recalculated using the north central distribution of rural nonfarm households by money income class, a 10.3 pound average is obtained, 13 percent above the actual rate for this group in the South. This example shows the importance to meat consumption of the distribution of households by income class.

12/ Based on data in report table 1 of Food Consumption of Households in the South, Report No. 4, 1955 Household Food Consumption Survey.

When comparing the data among urbanization groups, it is necessary to bear in mind the nonmoney income of rural households, particularly the farm households. The use of the annual money income after income taxes as the basis for economic classification of households, the practice of this and most other such surveys, does not take into consideration the value of home-produced food, fuel and housing which is in effect income, that is, nonmoney income. This can be particularly significant for the farm households who received relatively low money incomes.

Comparison of Regional
Production and Consumption
Balances 13/

Since meat is not always consumed in the region in which the particular meat animals were raised or slaughtered, measures of the flow of these products through several stages of the marketing process from the farm to the consumer are important in the analysis of many problems in meat production and marketing adjustment.

Data have been available on meat production, net marketings and slaughter by States or region. 14/ Satisfactory information has not been available on meat consumption by States or regions. 15/ If it is assumed that nonhousehold meat consumption varies generally among regions the same as household consumption and that the consumption pattern changes little through the year, the spring 1955 survey data provide an approximation of the distribution of annual meat consumption by region.

Because of the difference in coverage between the consumption data from the survey and the total production data, it is impossible to make exact comparisons. Even so, a comparison of the percentage

13/ Distributions of net marketings of meat and of meat production by region, used in this section, are based on estimates prepared by the staff of the Livestock, Fats and Oil Section, Statistical and Historical Research Branch, AMS.

14/ "Meat Production by States," The Livestock and Meat Situation, LMS-82 March 2, 1956 and "Geography of Livestock Production and Slaughter," The Livestock and Meat Situation, LMS-85, August 17, 1956.

15/ Hitherto, only a lamb and mutton study and some limited data on the distribution of meat at wholesale under wartime controls provided any indication of regional variations in meat consumption. Distribution of Lamb and Mutton for Consumption in the U. S. (1954), AMS-93, February 1956 and "Geography of Meat-Animal and Meat Production and Meat Consumption," The Livestock and Meat Situation, LMS-18, August 1948.

Table 21.- Regional distribution of net marketings of meat animals, meat production from slaughter, and household consumption of meat, 1955 ^{1/}

| Item | United States | North-east | North Central Region | South | West |
|--|---------------|------------|----------------------|---------|---------|
| | Percent | Percent | Percent | Percent | Percent |
| Total meat | | | | | |
| Net marketings of meat animals | 100 | 3 | 63 | 22 | 12 |
| Meat production from all slaughter ^{2/} ^{3/} | 100 | 9 | 59 | 19 | 13 |
| Household consumption, spring ^{2/} | 100 | 27 | 35 | 26 | 12 |
| Beef and veal | | | | | |
| Net marketings of cattle | 100 | 4 | 50 | 28 | 18 |
| Meat production from all slaughter ^{4/} | 100 | 10 | 53 | 19 | 18 |
| Household consumption, spring ^{5/} | 100 | 28 | 37 | 21 | 14 |
| Pork | | | | | |
| Net marketings of hogs | 100 | 1 | 85 | 12 | 2 |
| Meat production from all slaughter ^{4/} | 100 | 8 | 66 | 20 | 6 |
| Household consumption, spring ^{5/} | 100 | 22 | 34 | 34 | 10 |
| Lamb and mutton | | | | | |
| Net marketings of sheep | 100 | 1 | 36 | 19 | 44 |
| Meat production from all slaughter ^{4/} | 100 | 16 | 48 | 8 | 28 |
| Household consumption, spring ^{5/} | 100 | 57 | 17 | 8 | 18 |

^{1/} Marketings of meat production based on estimates developed from published and unpublished sources; household meat consumption for the spring based on quantities of meat consumed by households from 1955 Household Food Consumption Survey.

^{2/} Excludes variety meats and game but includes luncheon meats.

^{3/} Based on retail weight.

^{4/} Based on carcass weight.

^{5/} Excludes meat used in luncheon meats, which is included in total meat.

distribution of the total quantities of meat animals marketed and slaughtered and the meat consumed by region does give an indication of the balance between production and consumption in each region.

Table 21 shows the regional distribution of net marketings of meat animals and total meat production from slaughter for 1955 along with the distribution for household consumption for spring 1955. ^{16/} These sets of figures provide an indication of the flow of meat animals and of meat through marketing channels.

For example, about 28 percent of the cattle and calves (live-weight basis) was sold by southern farmers (about 60 percent of it from the 4 southern States west of the Mississippi), but the southern packers produced only 19 percent of the total beef and veal. Since southern household consumption accounted for 21 percent of the total beef and veal consumed by all U. S. households in spring 1955, it is likely that some of that meat had to be shipped back to the South for consumption.

Another example is shown in the distribution for pork in the North Central Region. This region is a heavy producer of hogs, marketing 85 percent of the total in 1955. Many are shipped as hogs or pork to deficit hog production areas for slaughter and consumption since the North Central Region slaughters and consumes a much smaller share of the total than it markets. On the other hand, all other regions slaughter more hogs than they market, and apparently consume a much larger share of all pork than they produce from slaughter.

A somewhat more exact comparison is shown in table 22, where the distribution for commercial slaughter (excluding meat produced from farm slaughter) in spring 1955 is compared with the distribution of household purchases for the same period. Data on net marketings of meat animals by region are available only on an annual basis.

^{16/} These approximations of the quantity consumed by households in each region were derived for spring 1955 by multiplying each region's average quantity used per household (as published) by the number of households eligible for the survey in each region.

Table 22.- Regional distribution of meat production from commercial slaughter and of household purchases of meats, spring 1955 ^{1/}

| Item | United States | North-east | North Central Region | South | West |
|---|---------------|------------|----------------------|---------|---------|
| | Percent | Percent | Percent | Percent | Percent |
| Total meat ^{2/} | | | | | |
| Meat production from commercial slaughter ^{3/} | 100 | 10 | 58 | 18 | 14 |
| Household purchases | 100 | 28 | 34 | 25 | 13 |
| Beef | | | | | |
| Meat production from commercial slaughter ^{4/} | 100 | 9 | 55 | 17 | 19 |
| Household purchases ^{5/} | 100 | 29 | 35 | 21 | 15 |
| Veal | | | | | |
| Meat production from commercial slaughter ^{4/} ^{6/} | 100 | 14 | 36 | 40 | 10 |
| Household purchases ^{5/} | 100 | 45 | 29 | 15 | 11 |
| Pork | | | | | |
| Meat production from commercial slaughter ^{4/} | 100 | 9 | 67 | 17 | 7 |
| Household purchases ^{5/} | 100 | 24 | 33 | 32 | 11 |
| Lamb and mutton | | | | | |
| Meat production from commercial slaughter ^{4/} | 100 | 16 | 46 | 12 | 26 |
| Household purchases ^{5/} | 100 | 60 | 17 | 6 | 17 |

^{1/} Meat production developed from published and unpublished data; household meat purchases based on the quantities of purchased meats used by households from the 1955 Household Food Consumption Survey.

^{2/} Excludes variety meats and game, but includes luncheon meats.

^{3/} Based on retail weight.

^{4/} Based on carcass weight.

^{5/} Excludes meat used in luncheon meats, which is included in total meat.

^{6/} Relatively large share of veal production in South is partly due to their custom of classifying heavier carcasses as veal than do other regions.

